

REMARKS/ARGUMENTS

After entry of the foregoing amendments, claims 1-51 will be pending in the application. Claim 1 is the only remaining independent claim. No new matter has been added by the amendment. Reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

As a preliminary matter, Applicant notes that the Office action provides no reason for the rejection of claim 22.

Claim 1, as originally submitted, was rejected under 35 U.S.C. § 112, first paragraph, as being indefinite due to the recitation “surface area that is larger than any cross-sectional area of the housing” (Office action at § 1). Applicant has amended claim 1 to clarify that the recited display has a “viewable” surface area that is larger than any cross-sectional area “taken through” the housing. Applicant respectfully submits that claim 1, as amended herein, complies with the definiteness requirements of 35 U.S.C. § 112, first paragraph. Accordingly, Applicant respectfully requests that the section 112 rejection of claim 1 be withdrawn.

Claim 1, as originally submitted, was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent application publication 2003/0098857 (“Gettemy”). Gettemy discloses a handheld computer that includes a housing and an expandable display that assembly supported by the housing (Gettemy, Abstract). Gettemy discloses that the display may be “a flexible display, a foldable display, a rollable display, or any other type of expandable or flexible displays” (Gettemy at ¶ 0028).

Applicant has amended claim 1 to recite a collapsible display that is mechanically coupled to an “interior” of the housing, wherein the display “is collapsible into the interior of the housing.” Applicant respectfully submits that Gettemy does not teach or suggest a display that is mechanically coupled to an interior of the housing and is collapsible into an interior of the housing. To the contrary, the display of Gettemy is attached to the exterior of the housing.

As shown in FIG. 1 of Gettemy, the display 140 is a detachable, foldable display that may be coupled to the exterior of the housing 110 of a handheld computer 100 (see, for example, Gettemy at ¶¶ 0023-0025). As shown in FIG. 8 of Gettemy, the display screen 710

is coupled to the exterior of the housing of a handheld computer 700 (see, for example, Gettemy at ¶ 0028). Accordingly, Applicant respectfully requests that the 102(e) rejection in view of Gettemy be withdrawn.

Applicant further respectfully submits that claim 1 patentably defines over the teachings of the other cited references, alone and in combination with Gettemy. In particular, Applicant notes that U.S. patent 6,643,124 (“Wilk”) discloses an “extensible flexible display screen” (Wilk at col. 8, l. 42 – col. 9, l. 9). As shown in FIGs. 17 and 18 of Wilk, however, “a protective enclosure 204 contains [the] flexible display wound on a spring loaded roller (not shown)” (*id.*). The protective enclosure 204 “is mounted on a pair of telescoping posts 202” (*id.*). Though the telescoping posts 202 appear to extend into an interior of the housing of the panel 200, it is clear that the display, which is contained within the protective enclosure 204, does not collapse into the interior of the housing as claimed. Accordingly, Applicant respectfully submits that claim 1 patentably defines over Wilk as well.

As neither Gettemy nor Wilk teaches nor suggests a collapsible display that collapses into an interior of a housing, Applicant respectfully submits that claim 1 patentably defines over the combined teachings of Gettemy and Wilk. As claims 2-51 depend ultimately from claim 1, Applicant respectfully submits that claims 2-51 patentably define over the combined teachings of Gettemy and Wilk as well.

Claim 11, as originally submitted, was rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of U.S. patent 6,459,418 (“Comiskey”). Claim 11 has been amended to recite that the display is an organic light emitting diode display and the power supply is a thin film power supply. The Office action acknowledges that Gettemy fails to disclose that the power supply includes a thin film battery (Office action at § 5). The Office action asserts, however, that the claimed invention would have been obvious because Comiskey, at col. 15, ll. 49-50, discloses a thin film battery (*Id.*).

Comiskey discloses a reflective or electrophoretic display that may be powered via a thin film battery (Comiskey at col. 2, ll. 15-23 and col. 15, ll. 49-50). In contradistinction to the claimed invention, however, Comiskey teaches that emissive electroluminescent films and organic light emitting diode films require continuous power consumption for operation, and are thus not practical for many applications (Comiskey at col. 2, ll. 1-5).

Applicant's claim 11 recites a display formed of organic light emitting diodes that, contrary to the explicit teachings of Comiskey, may be powered using a thin film battery (which, as is well known, is not only a low voltage power supply but also a low current power supply). Thus, Comiskey actually teaches away from the claimed invention. Accordingly, Applicant respectfully submits that the teachings of Gettemy and Comiskey cannot properly be combined to render the invention of Applicant's claim 11 obvious.

Claim 12, which recites that the means for receiving input radio signals is a "smart" antenna, stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of Wilk. The Office action acknowledges that Gettemy fails to disclose that the means for receiving input radio signals is a smart antenna (Office action at § 4, p.5). The Office action asserts, however, that Wilk, at col. 8, ll. 60-61, discloses a smart antenna (*id.*). Applicant respectfully traverses the rejection.

The cited passage of Wilk discloses "a *stub* antenna 186" (Wilk at col. 8, ll. 60-61) (emphasis added). Applicant respectfully submits that Wilk does not teach or suggest a *smart* antenna as recited in claim 12. A smart antenna, as that term is used in Applicant's specification, including claim 12, includes processing (either in the antenna itself or in the processor) "to measure, amplify, and otherwise optimize the input and output signals depending on the characteristics of the environment in which the signal is being transmitted or received" (specification at p.7, ll. 14-17). Applicant respectfully submits that the cited passage of Wilk does not teach or suggest such a smart antenna. Accordingly, Applicant respectfully submits that, for this reason as well, claim 12 patentably defines over the combined teachings of Gettemy and Wilk.

Claim 16, as originally submitted, also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of Wilk. As amended, claim 16 recites a rod, "contained within the interior of the housing," around which a flexible display can be wound. As the Office action recognizes, Gettemy fails to disclose a rod rotationally coupled to the housing and to an end of the display such that the display can be wound around the rod (Office action at § 4, p.5). Further, as discussed above in connection with claim 1, Applicant respectfully submits Wilk does not teach or suggest a rod, around which the display can be wound, that is contained within the interior of the housing. For this reason as well, Applicant

respectfully submits that claim 16 patentably defines over the combined teachings of Gettemy and Wilk.

Claim 19, as originally submitted, also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of Wilk. As amended, claim 19 recites a foldable display that is coupled to the housing such that the display can be folded *into* the housing. Applicant respectfully submits that the Office action points to no teaching in the prior art for a display that may be folded into the interior of a housing. As discussed above in connection with claim 1, Applicant acknowledges that Gettemy discloses a display screen 710 that is coupled to the *exterior* of the housing of a handheld computer 700 (Gettemy at ¶ 0028 and FIG. 8). Gettemy, however, does not teach or suggest that the display can be folded into the interior of the housing. For this reason as well, Applicant respectfully submits that claim 19 patentably defines over the combined teachings of Gettemy and Wilk.

Claims 27 and 28, as originally submitted, were rejected under 35 U.S.C. § 102(e) as being anticipated by Gettemy. The Office action asserts that Gettemy, at ¶¶ 0002, 0005, and 0024 discloses a display that is removably coupled to the housing (Office action at § 3, p.4). Applicant has amended claim 27 to clarify that the recited display is adapted to be removably coupled to each of a plurality of *different types* of external devices (see specification at p. 18, ll. 9-22). Applicant respectfully submits that Gettemy does not teach or suggest a display that is adapted to be removably coupled to each of a plurality of different types of external devices. For this reason as well, Applicant respectfully submits that claim 27 patentably defines over the teachings of Gettemy.

Further, the Office action points to no teaching in Gettemy or elsewhere in the prior art of such a display that, as recited in claim 28, is further adapted to automatically configure to the external device to which it is coupled. For this reason as well, Applicant respectfully submits that claim 28 patentably define over the teachings of Gettemy.

Claim 34, which recites local processing power for each pixel, stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of U.S. patent 6,239,812 ("Pettazzi"). As the Office action recognizes, Gettemy fails to disclose local processing power for each pixel (Office action at § 10). The Office action asserts, however, that Pettazzi, at col. 2, ll. 31-57, discloses local processing power for each pixel (*id.*). Applicant respectfully traverses the rejection.

Local processing power, as that term is used in Applicant's specification, including claim 34, refers to each pixel having its own processing power. As described in Applicant's specification:

[P]rocessing power could be provided locally to each pixel. For example, each pixel 109 could be programmed (or initialized) to know where it is relative to other pixels in the display. Unique addressing codes can be provided so that each pixel 109 knows what to display. Thus, the pixels 109 in an intelligent display system 106 can be viewed as nodes on a network.

(specification at p.10, ll. 15-25).

Applicant respectfully submits that Pettazzi does not teach or suggest such local processing power for each pixel. By contrast, Pettazzi discloses a microprocessor 4 that is local to the display, but which controls the pixels via a pixel processor pipeline 5 (Pettazzi at col. 2, ll. 32-44). Pixel by pixel processing is performed by the pixel processor pipeline 5, which takes advantage of the local processor power of the microprocessor 4 (*id.*). In contradistinction to the claimed invention, Pettazzi does not teach or suggest local processing power *for each pixel*. Accordingly, Applicant respectfully submits that, for this reason as well, claim 34 patentably defines over the teachings of Gettemy and Pettazzi.

Claim 37, which recites a plurality of self-configurable pixels, stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of Pettazzi. Applicant respectfully traverses the rejection, and respectfully submits that the Office action points to no teaching in Gettemy, Pettazzi, or elsewhere in the prior art of a display comprising a plurality of *self*-configurable pixels.

According to Applicant's specification, the display system of the invention may be *self*-configurable:

The display can *reconfigure itself* as a matter of grayscale versus resolution based on to the needs of the image to be displayed. That is, the sub-display can reconfigure itself, based on whether a more precise grayscale or more resolution is desired for the current display. For example, for a particular image, four gray levels might be adequate but more resolution is desirable. In such an application, the 4x4 sub-display could reconfigure itself as four 2x2 sub-displays, each having four gray levels. Similarly, four 4x4 sub-displays could work together to form an 8x8 display having less resolution, but 64 gray levels.

(specification at p.17, l.22 – p.18, l.2) (emphasis added).

Applicant respectfully submits that Pettazzi does not teach or suggest *self*-configurable pixels. Accordingly, Applicant respectfully submits that, for this reason as well, claim 37 patentably defines over the teachings of Gettemy and Pettazzi. Further, as claims 38-41 depend ultimately from claim 37, Applicant respectfully submits that claims 38-41 patentably define over the teachings of Gettemy and Pettazzi as well.

Claim 48, which recites that the display comprises OLEDs that form bistable pixels, stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gettemy in view of Pettazzi and further in view of U.S. patent 6,445,489 ("Jacobson"). The Office action asserts that Jacobson, at col. 9, ll. 19-20, discloses OLEDs that form bistable pixels (Office action at § 11, p.11). Applicant respectfully traverses the rejection.

In contradistinction to the claimed invention, the cited passage of Jacobson discloses a display 40 that contains a sub-pixel region 42, which is a bistable *electrophoretic* material (Jacobson at col. 9, ll. 19-20) (emphasis added). Electrophoretic materials are well known, and are intrinsically bistable. That is, by applying an electric field to an electrophoretic material, its reflective properties may be changed, and it will remain in the changed state until it is changed again. Thus, an electrophoretic material is bistable.

An electrophoretic material, however, is not an OLED. Unlike, electrophoretic materials, OLEDs are not intrinsically bistable. Applicant respectfully submits that the Office action points to no teaching in Jacobson or elsewhere in the prior art of a display comprising a bistable OLED as recited in Applicant's claim 48. Accordingly, Applicant respectfully submits that, for this reason as well, claim 48 should be allowed.

For all the foregoing reasons, Applicant respectfully submits that claims 1-51 are allowable. A notice of allowance for claims 1-51 is, therefore, respectfully requested. If the Examiner believes that the application is not in condition for allowance for any reason, the Examiner is encouraged to contact the undersigned to resolve any remaining issues.

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PATENT

Respectfully submitted,

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